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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/586,858	06/05/2000	Avery Osgood	GSI-005	8377

7590 03/17/2005
Rajesh Vallabh
Hale And Dorr LLP
60 State Street
Boston, MA 02109

EXAMINER

SIEFKE, SAMUEL P

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/586,858	Applicant(s) OSGOOD ET AL.	
	Examiner Samuel P Siefke	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-18 and 102-133 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-18 and 102-133 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 12/06/04 have been fully considered but they are not persuasive.

Applicant argues, "The reference does not anticipate claim 1, which specifies washing the pin by impinging the fluid depositing tip of the pin with at least one wash fluid." Examiner would like to specifically point to column 4, lines 32-44 and even more to lines 37-42, "preferably a cleaning or drying station comprising a circular nozzle is constructed to discharge a conical flow of fluid... high pressured liquid... against (impinging) a deposit device (being a pin or pin -like structure." Webster's 11 New Riverside University Dictionary defines impinge as; (1) to push against, (2) to collide or strike, Reference '752 does just this. Applicant argues "the reference does not anticipate claim 1 even if it can be said to disclose impinging against the pin of the deposit device." Col. 4, lines 37-42 do just this. It is inherent that '758 impinges a cleaning fluid on the tip (12d) of the pin because in the pin itself is the depositing device (col. 9, lines 16-50) Applicant argues that the prior art does not teach or suggest directing a wash fluid at the pin tip in a swirling pattern. Examiner points out that the mere act of multiple streams impinging on the pin would create the "swirling" pattern recited. Applicant argues that washing the pin comprises impacting the pin with pulsed streams of wash fluid and drying the pin before next round of pulsing. Examiner points out to col. 10, lines 22-34 as cited before in the First Office Action. "The pin and ring are first exposed to one or more simultaneous or successive fluid currents or blasts of

continuous or pulsed flow that blow remaining sample fluid from the parts and into the trap. Subsequently a fluid stream of liquid or air may expose the parts to cleaning fluid such as liquid stream or aerosols containing water-borne detergents. Applicant argues that the prior art does not teach drying a pin by flowing air past the pin with the air being of a lower humidity than the air in an enclosure containing the spotting instrument.

Column 10 lines 32-34 teach that an air current from the nozzle, supplemented by induced air flow 204, can dry both pin and ring, in which case the air streams may be heated. The air being introduced into the chamber for drying is inherently dryer than the air around the tip of the dispensing nozzle because when heated the water on the nozzle is evaporated into the surrounding air making the air around the nozzle have more humidity than the incoming air. Applicant argues that claim 18 is allowable because washing the pin with a wash fluid while applying a vacuum to remove wash fluid previously applied to the pin. The purpose of the vacuum pump is to create a vacuum so that when a pin is washed the vacuum removes the wash fluid previously applied to the pin (claim 1). Drying the pin is accomplished by an air current from the nozzle, supplemented by induced air flow 2% (col. 10, lines 1 1-34).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims **1-4,6-18, 102-133** are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99 36760 A (Genetic Microsystems, Inc.).

'760 discloses an apparatus for washing and drying a pin of a microarray spotting instrument that comprises: moving a pin to a given position; washing the pin while in a given position by impinging fluid against the pin; and drying the pin without substantially moving the pin from the given position (page 10, lines 5-25); moving the pin comprises positioning a pin in a given location (chamber or tube, fig 9F and 9G) in a pin washer/dryer apparatus; washing the pin comprises directing multiple streams of wash fluid at the pin; drying the pin comprises flowing air past the pin (vacuum; page 44; lines 1-18); (page 10, line 5- page 11, line 25; page 43, line 25 - page 44, line 18; page 47, lines 7-18).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims **1-4,6-18, 102-133** are rejected under 35 U.S.C. 102(e) as being anticipated by Montagu (USPN 6,428,752).

Montagu discloses an apparatus for washing and drying a pin of a microarray spotting instrument that comprises: moving a pin to a given position; washing the pin while in a given position; and drying the pin without substantially moving the pin from the given position; moving the pin comprises positioning a pin in a given location (chamber or tube, fig 9F and 9G) in a pin washer/dryer apparatus; washing the pin comprises directing multiple streams of wash fluid at the pin; drying the pin comprises flowing air past the pin (vacuum; col. 10, lines 18-20); (col. 2, lines 25-50; col.4, line 27 - col. 5, line 46; col. 10, lines 6-34; col. 15, lines 8-61; claims 1-14).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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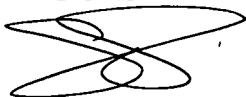
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



March 8, 2005


Jill Warden
Supervisory Patent Examiner
Technology Center 1700